

We claim:

1. A method for inhibiting growth of tumor cells in a subject comprising administering to the subject a cathepsin inhibitor.
2. The method of claim 1, wherein the inhibiting comprises inducing apoptosis of the tumor cells.
3. The method of claim 2, wherein the inhibiting comprises inducing cathepsin-dependent apoptosis of the tumor cells.
4. The method of claim 1, wherein the cathepsin inhibitor is CATI-1.
5. The method of claim 1, wherein the cathepsin inhibitor is a derivative of CATI-1.
6. A method of treating cancer cells in a subject comprising administering a therapeutically effective amount of a cathepsin inhibitor.
7. The method of claim 6, wherein the cathepsin inhibitor is CATI-1.
8. The method of claim 6, wherein the cathepsin inhibitor is a derivative of CATI-1.
9. The method of claim 6, wherein the cancer is a solid tumor.
10. The method of claim 9, wherein the cancer is prostate cancer.
11. The method of claim 9, wherein the cancer is breast cancer.
12. The method of claim 9, wherein the cancer is a brain tumor.
13. The method of claim 6, wherein the cancer is a leukemia.
14. A method for inhibiting inflammatory disease states in a subject comprising administering to the subject a cathepsin inhibitor.
15. The method of claim 14, wherein the cathepsin inhibitor is CATI-1.
16. The method of claim 14, wherein the cathepsin inhibitor is a derivative of CATI-1.
17. The method of claim 14, wherein the inflammatory disease is rheumatoid arthritis.
18. A method for inducing cytotoxicity in a cell comprising:
administering to the cell a cytotoxic dose of a cathepsin inhibitor.

19. The method of claim 18, wherein the cell is a cancer cell.
20. A pharmaceutical composition comprising a substantially purified cathepsin inhibitor and a pharmaceutically acceptable carrier.
21. The pharmaceutical composition of claim 20, wherein the cathepsin inhibitor is CATI-1.
22. The pharmaceutical composition of claim 20, wherein the cathepsin inhibitor is a derivative of CATI-1.
23. A method for inhibiting growth of tumor cells comprising:
 - making a recombinant vector that expresses a cathepsin inhibitor;
 - administering the recombinant vector to the tumor cells.
24. The method of claim 23, wherein the inhibiting comprises inducing apoptosis of the tumor cells.
25. The method of claim 23, wherein the recombinant vector expresses CATI-1.
26. The method of claim 23, wherein the recombinant vector expresses a derivative of CATI-1.
27. A method for inducing apoptosis in a cell comprising:
 - expressing a heterologous nucleic acid sequence encoding CATI-1 in a host cell having enhanced cathepsin activity as compared to control host cells.